OCCASIONAL PAPERS
THE MUSEUM
TEXAS TECH UNIVERSITY

NUMBER 110 16 SEPTEMBER 1987

DISTRIBUTIONAL NOTES ON SOME MAMMALS FROM THE EDWARDS PLATEAU AND ADJACENT AREAS OF SOUTH-CENTRAL TEXAS

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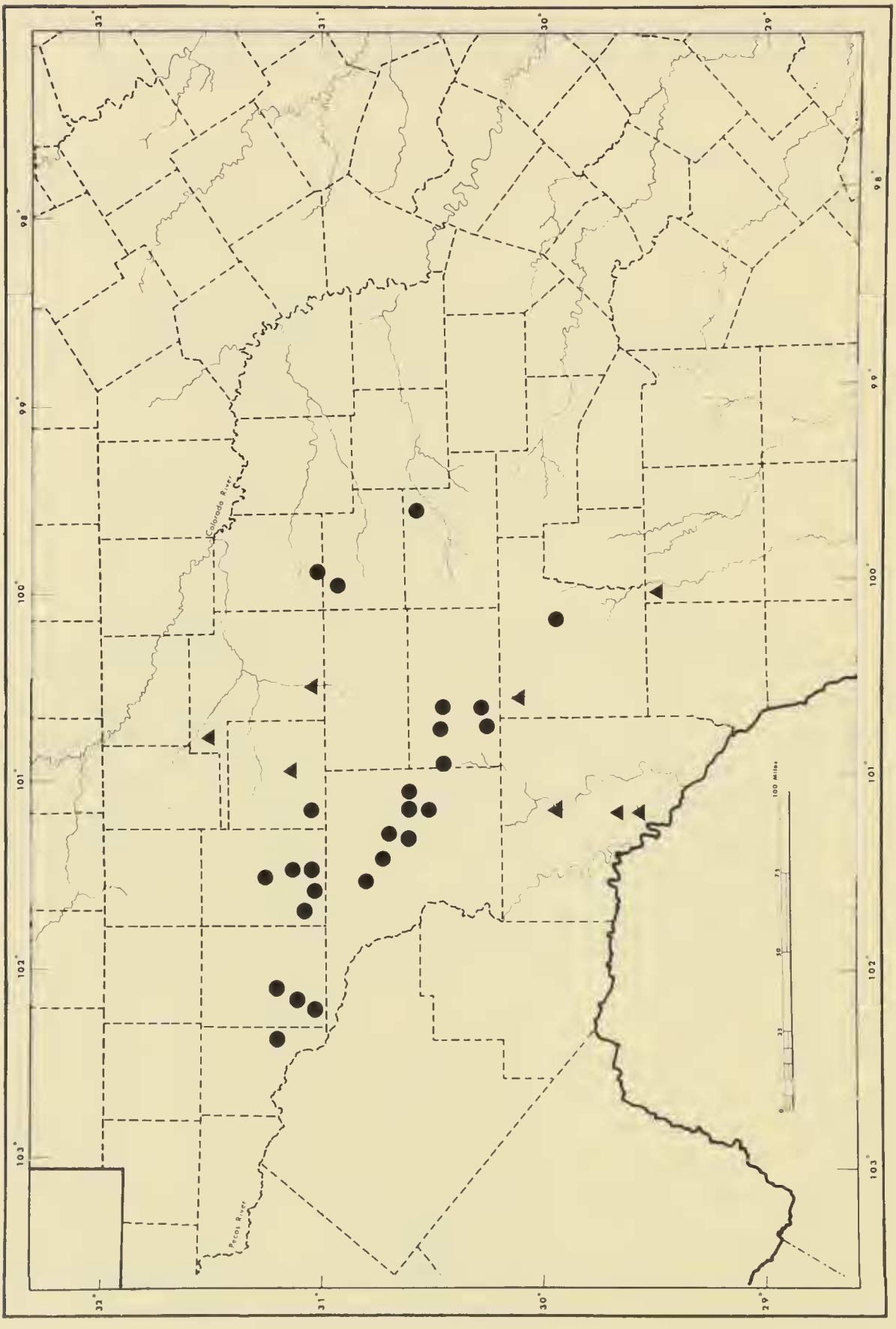
For the past two years, we have collected mammals on the Edwards Plateau and in adjacent areas of south-central Texas, principally to the east of the Pecos River. Among the specimens obtained and observations recorded, along with previously collected material in The Museum, Texas Tech University, are records of 18 taxa that add significantly to our understanding of their distribution in this interesting ecological area. These data are recorded here. Information on bats taken during our field research has been reported elsewhere (Manning *et al.*, 1987).

Unless otherwise noted, all specimens are housed in the collection of Recent mammals at The Museum, Texas Tech University. We are grateful to the Graduate School of that institution for providing a summer research assistantship to Hollander in support of this work, and to the office of the Vice President for Academic Affairs and Research at Texas Tech, the National Institutes of Health, and the Theodore Roosevelt Memorial Fund of the American Museum of Natural History for financial support for field exploration. We also thank D. Burton, J. Carter, C. Holder, D. Holder, and D. McCullough for assistance, and M. R. Lee of the University of Illinois for the loan of material in his care.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Didelphis virginiana virginiana Kerr, 1792.—There are few records of this opossum from southwestern Texas. Therefore, it is noteworthy that we examined one found dead on a street in McCamey, Upton County, on 26 December 1986. Schmidly (1977:25) stated that *D. virginiana* was known from the Trans-Pecos region on the basis of a single specimen and that it probably occurred only in riparian habitats associated with the Rio Grande. McCamey, just west of the Edwards Plateau, lies in an area of desert scrub, but is only about seven miles east of the Pecos River.

Ammospermophilus interpres (Merriam, 1890).—The eastern limits of distribution of this antelope squirrel are not well documented. Creel and Thornton (1970:481) reported *A. interpres* (as *Citellus leucurus*) from Reagan County, a record overlooked by Davis (1974). We sighted an individual 1 mi. S Crane, Crane County, the northernmost recorded occurrence of this species east of the Pecos River, on 24 July 1986.

Thomomys bottae (Eydoux and Gervais, 1836).—The distribution of smooth-toothed pocket gophers on the Edwards Plateau has not been well documented. Hall (1981:475) mapped the range of *Thomomys* in west-central Texas as occurring in the southern part of the plateau as far east as Kimble County, following Dalquest and Kilpatrick (1973). Records of occurrence of *T. bottae* from several northern counties on the plateau that were published by Berry and Baker (1971) and Thornton and Creel (1975) were overlooked by Hall (1981). These locality records and those for additional specimens reported here are mapped in Fig. 1.

Two currently recognized races of *T. bottae* occur on the Edwards Plateau, *T. b. limitaris* Goldman (1936:118) in the west and *T. b. confinalis* Goldman (1936:119) in the east. On the average, specimens from the west are paler in pelage color than

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FIG. 1—Records of occurrence of *Thomomys bottae* on the Edwards Plateau and in adjacent areas east of the Pecos River, south-central Texas. Circles represent specimens examined; triangles represent records from the literature (Bailey, 1905; Dalquest and Kilpatrick, 1973; Davis, 1974; Thornton and Creel, 1975). Some specimens and previous records are not plotted because undue crowding of symbols would have resulted. For the same reason, some symbols are slightly offset. We did not plot the type locality (35 mi. E Rocksprings) of *T. b. confinalis* because of its uncertain location (North Fork Guadalupe River, 15 mi. W Japonica, Kerr County, according to Miller and Kellogg, 1955:306).

those from the east but selected individuals from either region, if placed within a series from the other, are difficult to distinguish. Variation in this species in Texas currently is under study and we thus have not attempted, at this stage, to assign trinomials to our material.

Specimens examined, many of which represent newly recorded localities, are as follows.—Concho Co.: 6 mi. S, 16 mi. W Eden, 1. Crane Co.: 6 mi. S Crane, 2. Crockett Co.: 20 mi. S Big Lake, 1; 27 mi. NW Ozona, 1; 17 mi. NW Ozona, 3; 15 mi. N, 11 mi. W Ozona, 1; 14 mi. N, 16 mi. W Ozona, 1; 14 mi. N, 13 mi. W Ozona, 2; 11 mi. NW Ozona, 1; 5 mi. NW Ozona, 1; 4 mi. W Ozona, 1; 1 mi. E Ozona, 1; 7 mi. E Ozona, 1; 8 mi. S Ozona, 1. Edwards Co. (Univ. Illinois): Rocksprings and localities within 3.5 mi. thereof, 11. Irion Co.: 4 mi. N Barnhart, 1; 4 mi. W Barnhart, 1; 0.5 mi. W Barnhart, 1. Kimble Co.: 1.5-2 mi. S London, 2; 2.5-4 mi. SSW London, 5; 6 mi. SSW London, 1. Menard Co.: 9 mi. N, 22 mi. W Menard, 1. Reagan Co.: 3-6 mi. SE Stiles, 7; 7 mi. N Big Lake, 1; 15 mi. W Big Lake, 1; 12 mi. W Big Lake, 1; 3 mi. W Big Lake, 5; 1 mi. W Best, 1; 1-2 mi. S Big Lake, 2; 4 mi. S Big Lake, 1. Sutton Co.: 2 mi. N, 9 mi. W Sonora, 1; Sonora and localities within 7 mi. thereof, 29; 20 mi. W Sonora, 6; 13 mi. W Sonora, 1; 15.5 mi. S Sonora, 3; 0.9-7.0 mi. W jct. US 277 and FM 189, 6. Upton Co.: 12 mi. N, 5 mi. E McCamey, 3; 4 mi. N, 4 mi. E McCamey, 1; McCamey and localities within 3 mi. thereof, 18.

Geomys bursarius knoxjonesi Baker and Genoways, 1975.—We obtained four pocket gophers of this subspecies from a place 17 mi. N and 19 mi. W Crane, and two from 5 mi. N and 17 mi. W Crane, both localities in Crane County. Along with specimens from 3.5 mi. E Monahans, Ward County, reported by Baker and Genoways (1975:17), these constitute the southernmost records for this genus in west-central Texas. The area occupied by *G. bursarius* is an extension of the Monahans Sand Hills into the northern quarter of Crane County, which is one of only three or four counties in Texas in which all three genera of gophers (*Cratogeomys, Geomys, Thomomys*) known from the state are present.

Cratogeomys castanops (Baird, 1852).—The yellow-faced pocket gopher is distributed throughout much of the western third of Texas where it occurs parapatrically with *Geomys*

bursarius in the north and with *Thomomys bottae* in the south (also with *Geomys personatus* to the southeast in the vicinity of the Rio Grande). Both *Cratogeomys* and *Thomomys* are found in the western part of the Edwards Plateau and adjacent areas where the latter usually is limited to shallow, hard, frequently rocky soils. Soil type alone, however, does not seem to be a limiting factor in the distribution of these gophers and it is not always possible to predict which genus will be found at a given locality.

For example, *Cratogeomys* occurs along the Pecos River in Crane and Pecos counties. But a few miles to the east, in much shallower burrow systems, *Thomomys* is found in eastern Crane County, in the immediate vicinity of McCamey, Upton County, and eastward from McCamey about half way toward Rankin, only 15 miles distant. At Rankin, *Cratogeomys* again appears. These distributional records were obtained in 1985 and 1986. There is published evidence (Reichman and Baker, 1972; Williams and Baker, 1976) that *Cratogeomys* has displaced *Thomomys* within recent years from several places in Trans-Pecos, Texas, although the dynamics of these distributional shifts over time are not well understood. See also Dalquest and Kilpatrick (1973) and Thornton and Creel (1975) for additional information on the geographic ranges of pocket gophers on the Edwards Plateau.

Geographic variation in *C. castanops* in Texas is deserving of serious, in-depth study. Specimens we have examined from the Edwards Plateau and adjacent areas, which are only tentatively assigned to subspecies (see Russell, 1968), follow. *Cratogeomys castanops angusticeps* Nelson and Goldman, 1934.—Terrell Co.: 16 mi. S Sheffield, 1; 16 mi. S, 6 mi. E Sheffield, 2; 24 mi. S Sheffield, 1. *Cratogeomys castanops pratensis* (Russell, 1968).—Crane Co.: 7 mi. SW McCamey, 1. Pecos Co.: 2 mi. N. Girvin, 2. Upton Co.: 4 mi. N, 5 mi. W McCamey, 1. *Cratogeomys castanops simulans* (Russell, 1968).—Glasscock Co.: 19-20 mi. S (by road) Stanton, 3; 1.4-2 mi. N, 12.7-13.7 mi. W Garden City, 8; 0.7-2.4 mi. S, 11.8-13 mi. W Garden City, 12. Reagan Co.: 3 mi. NE Stiles, 1; 30 mi. S Garden City, 1. Sterling Co.: 1 mi. N, 4 mi. W Sterling City, 1. Upton Co.: Rankin, 2; 2 mi. E Rankin, 1; 8 mi. E Rankin, 1.

Chaetodipus nelsoni canescens (Merriam, 1894).—An adult female trapped on 1 December 1985 on King Mountain, 4 mi. N and 5 mi. E McCamey, Upton County, provides the northeastern-

most record of this pocket mouse from Texas and the second locality of record from east of the Pecos River (the other being from Comstock, Val Verde County—Borell and Bryant, 1942:25). The specimen was taken on a rocky slope along with *Peromyscus pectoralis*.

Dipodomys ordii medius Setzer, 1949.—Although mapped as occurring throughout west-central Texas southward to the Rio Grande by Hall (1981:568), the southernmost published record of *D. o. medius* actually is Monahans, Ward County (Setzer, 1949:520). We trapped 14 individuals at a place 5 mi. N and 17 mi. W Crane, and 16 at a place 17 mi. N and 19 mi. W Crane, both localities in sandy soil in Crane County. We also collected four individuals in sandy habitat 3.5 mi. N and 2.5 mi. E Crane, in Upton County. Our specimens constitute a southern extension of the documented range for this subspecies.

Dipodomys merriami ambiguus Merriam, 1890.—We collected a male *D. merriami* 5 mi. N and 4 mi. W Iraan, in Crockett County, on 4 June 1986, which constitutes the first report of the species from that county. Creel and Thornton (1970:481) and Ramsey and Carley (1970:351) both reported this kangaroo rat from the vicinity of Big Lake, Reagan County, localities overlooked by both Davis (1974) and Hall (1981). These are the only known records of this species from east of the Pecos River on the Edwards Plateau.

Peromyscus maniculatus blandus Osgood, 1904.—Schmidly (1977:106) mapped *P. maniculatus* as absent from the eastern part of the Trans-Pecos region. However, we collected a series of 15 specimens of *P. m. blandus* at Horsehead Crossing on the Pecos River, 4 mi. S and 14.5 mi. E Imperial, Pecos County. We also took a specimen on King Mountain, 4 mi. N and 4 mi. E McCamey, Upton County.

Hall (1981:672) assigned to *blandus* specimens originally reported only by specific name from Scurry County (Packard and Garner, 1964:388) and Tom Green County (Davis, 1966:186). Hall gave no basis for his decision, but it almost certainly was made solely on geographic grounds. In any event, we have examined the Scurry County specimen and, even though less than adult, its pelage is considerably darker than that typical of *blandus* and we do not regard it as representative of that race. We also doubt that

mice from Tom Green County are assignable to that subspecies. This leaves our material from Pecos and Upton counties as representing the easternmost records of *P. m. blandus* in Texas.

Peromyscus maniculatus pallescens J. A. Allen, 1896.—We have at hand a male from 3 mi. S Eldorado, Schleicher County, that is assignable to this subspecies. This specimen is similar in size and color to individuals of *P. m. pallescens* from central Texas that we have examined, and is much darker and smaller than typical specimens of *P. m. blandus*. Although Davis (1974:201) mapped the deer mouse as occurring over the entire western two-thirds of the state, the specimens here reported (see also account of *P. m. blandus*) constitute the only known localities of record for this species on the Edwards Plateau.

Peromyscus pectoralis laceianus Bailey, 1906.—The white-ankled mouse is known in Texas from much of the Trans-Pecos region, the eastern and southern parts of the Edwards Plateau, and northward through the central part of the state into Oklahoma (Schmidly, 1974). We have obtained these mice in rocky habitats at the following localities: 1 mi. S Crane, Crane County, 1; 4 mi. S, 2 mi. E Crane, Crane County, 4; 4 mi. N, 5 mi. E McCamey, Upton County, 10; 5 mi. S, 5 mi. E McCamey, in Crockett County, 2; and 4 mi. E Iraan, in Crockett County, 2. Our specimens establish the northernmost points of occurrence for *P. pectoralis* in the west-central part of Texas.

Baiomys taylori taylori (Thomas, 1887).—Northern and western expansions of the range of this species have been well documented in recent years (see, for example, Stangl *et al.*, 1983; Austin and Kitchens, 1986; Cleveland, 1986; and Hollander *et al.*, 1987). On 17 March 1986, we trapped five pygmy mice along a grassy-weedy fencerow 3 mi. S Eldorado, Schleicher County. These represent a westerly extension of the known range in central Texas of approximately 85 miles from 6 mi. S Mason, Mason County (Packard and Garner, 1964:388).

Onychomys arenicola arenicola Mearns, 1896.—On 28 November 1985, we obtained a female of this grasshopper mouse 8.5 mi. N and 13.5 mi. W Kermit, Winkler County. This constitutes the northeasternmost record in Texas for this species, which is primarily associated with the Trans-Pecos region. It is of

note that a northern grasshopper mouse, *O. leucogaster arcticeps*, was taken at this same locality.

Neotoma micropus micropus Baird, 1855.—Specimens available to us from Kimble and McCulloch counties help to fill a large distributional gap (Davis, 1974:219) in the range of this woodrat in central Texas. We have examined material from 6.6 mi. N Junction, 1, 6 mi. NE Junction, 3, 3 mi. E Junction, 1, and Texas Tech University Center at Junction, 1, all in Kimble County, and 14 mi. N Mason, in McCulloch County, 2.

Sigmodon hispidus berlandieri Baird, 1855.—Although widespread and common throughout most of the state, *S. hispidus* appears to be relatively rare on the Edwards Plateau, and only a few records document its occurrence there (Davis, 1974). We trapped a female on top of King Mountain, 4 mi. N and 4 mi. E McCamey, Upton County. This constitutes the only published record for this species from the western part of the Edwards Plateau proper. We also trapped two cotton rats 17 mi. N and 19 mi. W Crane, Crane County, and two 3.5 mi. N and 2.5 mi. E Crane, in Upton County, localities in sandy habitats a few miles northwest and north, respectively, of the Edwards Plateau escarpment.

Vulpes velox velox (Say, 1823).—Two specimens of this fox, a male and female from 9 mi. SW Menard, Menard County, taken on 14 December 1968, provide the southeasternmost record of occurrence for this species in Texas. This locality, in fact, is nearer the known range of the closely related *V. macrotis* than to previously reported records of *V. velox*, but our specimens clearly are assignable to the latter on the basis of their small ears, short, broad rostra, and relatively uninflated auditory bullae. Some cranial measurements (mm) of the pair (male first) are: condylobasal length, 106.4, 104.7; zygomatic breadth, 63.9, 60.5; least interorbital constriction, 22.9, 21.3; breadth of braincase, 44.6, 42.8; length of maxillary toothrow, 51.1, 49.3.

Spilogale gracilis leucoparia Merriam, 1890.—We found a male *S. gracilis* dead on U.S. Highway 87, 11 mi. SE Big Spring, Howard County, on 21 September 1986. This constitutes the northernmost record of this species in Texas (Davis, 1974:108). It also shortens the gap along the eastern edge of the Llano

Estacado between the recorded distributions of *S. gracilis* and *S. putorius* to about 70 miles from 1 mi. S Post, Garza County (Jones *et al.*, 1985:356).

Tayassu tajacu angulatus (Cope, 1889).—Although once distributed over much of the state, *T. tajacu* now is "restricted to western Texas and the Brush Country south of San Antonio" (Davis, 1974:246). Schmidly (1977:161) mapped the range in Trans-Pecos, Texas, as including only about the southern half of that region. On 27 December 1986, one of us (Hollander) observed a collared peccary along U.S. Highway 67, 1 mi. E McCamey, Upton County; that night he saw two more just inside the eastern city limits of McCamey. These observations establish the current range of the species northward at least to the northwestern edge of the Edwards Plateau.

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